

Notice of Allowability

Application No.

09/885,232

Examiner

Wesley A. Nicolas

Applicant(s)

CHEN, LINLIN

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/5/04.
2. ☒ The allowed claim(s) is/are 60-86.
3. ☒ The drawings filed on 20 June 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

This is in response to the Amendment submitted May 5, 2004. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 60-86 are currently pending in this application.

Specification

1. The objection to the title as set forth in the previous Office action has been **withdrawn** in view of the amendment submitted by Applicant on May 5, 2004.

Claim Objections

2. The objection to claim 85 as set forth in the previous Office action has been **withdrawn** in view of the amendment submitted by Applicant on May 5, 2004.

Claim Rejections - 35 USC § 103

3. The 35 U.S.C. § 103 rejections as set forth in the previous Office action have been **withdrawn** in view of the convincing arguments set forth by Applicant in the paper submitted May 5, 2004.

Allowable Subject Matter

4. Claims 60-86 are allowed over the prior art of record.
5. The following is an examiner's statement of reasons for allowance:

Regarding claim 60, the specific process for applying a metal structure which includes providing a first electroplating bath including boric acid, and a metal ion complexing agent, and applying a current density of between 1.0 mA/cm^2 and 5.0 mA/cm^2 was not taught or suggested by the prior art of record. Additionally, the reasons for allowance submitted by Applicant in the paper submitted May 5, 2004 is further deemed sufficient and is incorporated herein.

Regarding claims 82, the specific the specific process for applying a metal structure which includes providing a first electroplating bath which includes a metal ion complexing agent and an alkaline agent in an amount sufficient to adjust the pH of the bath to at least 9.0, and applying a current density of between 1.0 mA/cm^2 and 5.0 mA/cm^2 was not taught or suggested by the prior art of record. Additionally, the reasons for allowance submitted by Applicant in the paper submitted May 5, 2004 is further deemed sufficient and is incorporated herein.

Regarding claim 83, the specific the specific process for applying a metal structure which includes providing a first electroplating bath including boric acid and a metal ion complexing agent and applying electroplating power between the at least one surface of the workpiece and an electrode disposed in electrical contact with the first electroplating bath wherein power is applied in periodic pulses at a current density of between 1.0 mA/cm^2 and 5.0 mA/cm^2 was not taught or suggested by the prior art of record. Additionally, the reasons for allowance submitted by Applicant in the paper submitted May 5, 2004 is further deemed sufficient and is incorporated herein.

Regarding claims 86, the specific the specific process for applying a metal structure which includes providing a first electroplating bath which includes an alkaline agent in an amount sufficient to adjust the pH of the bath to at least 9.0, and applying a current density of between 1.0 mA/cm^2 and 5.0 mA/cm^2 was not taught or suggested by the prior art of record. Additionally, the reasons for allowance submitted by Applicant in the paper submitted May 5, 2004 is further deemed sufficient and is incorporated herein.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesley Nicolas whose telephone number is (571) 272-1247. The examiner can normally be reached on Mon.-Thurs. from 7 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached at (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov> . Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Wesley A. Nicolas
Primary Examiner

June 14, 2004